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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,158	10/22/2003	Larry Lee Lough	1749.001US2	6534
21186	7590	10/27/2004	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			KASTLER, SCOTT R	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/691,158

Applicant(s)

LOUGH, LARRY LEE

Examiner

Scott Kastler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-13,15-18 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-24 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/10/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### ***Claim Objections***

Claims 5, 6, 7 and 10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The above claims do not properly further limit independent apparatus claims 1 and 8 from which they depend, because the above claims recite only limitations dealing with the manner or method of use of the claimed apparatus, and it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. see *In re Casey*, 152 USPQ 235 and MPEP 2114. the amendment inserting that the apparatus is "adapted to" perform the claimed functions does not overcome this objection, since all of the apparatus which meet the limitations of the independent claims could also perform these functions, and therefore, the dependent claims are no more limiting than the independent claims.

### ***Double Patenting***

The terminal disclaimer filed on 9-10-2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent resulting from U.S. Patent Application Serial No. 10/691,282 has been reviewed and is accepted. The terminal disclaimer has been recorded. This terminal disclaimer overcomes the "obviousness type" double patenting rejections of the last office action, mailed 5-18-2004

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohland et al in view of either of Hillis or Todd et al. Bohland et al teaches an apparatus for crushing glass waste and separating heavy metals therefrom including a grinding device (the crusher (50)) for forming crushed particles, a screen (61) for filtering the particles to any desired diameter (including below 2mm in diameter) and transporting larger than desired particles back to the crushing device, a conveyor (80) for transporting the glass particles to a tank (96) containing an etchant of water and acid (see table 1 for example) where the etchant solution and particles are circulated and may include extra circulation means (see col. 6 lines 49-55 for example), and a screen and conveyor device (112) for removing the treated particles from the tank, thereby showing all aspects of the above claims except the use of either a circulating pump for additionally circulating the solution (etchant) or a pumping device for emptying the tank and filling the tank with either water or etchant, although the tank (96) of Bohland et al would have to be filled and emptied in some, unspecified manner. Both of Hillis (see col. 3 lines 25-35 for example) and Todd et al (see the embodiment of figure 3 for example) teach that in the etchant delivery art it was known at the time the invention was made to both employ circulation pumps to additionally circulate an etching solution in a bath in order to provide a more effective and quicker reaction time, and to employ pumps for the effective delivery and withdrawal of fluids

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from a processing tank. Because Bohland et al would also desire improved reaction times (and specifically allows for devices which increase circulation of the etchant) and would also require some type of delivery and withdrawal system for the fluids employed in the tank (96), motivation to employ the pumps taught by either of Todd et al or Hillis to be well known expedients in the art for these purposes, in the system described by Bohland et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

### ***Allowable Subject Matter***

The following is a statement of reasons for the indication of allowable subject matter: Instant claims 21-24 are allowable over the instantly applied and cited prior art at least because none of the instantly cited or applied prior art shows or fairly suggests an additional rinsing tank and water treatment device as described in the above claims, as explained in the previous office action, mailed on 5-18-2004.

### ***Response to Arguments***

Applicant's arguments filed on 9-10-2004 have been fully considered but they are not persuasive. Applicant's arguments that instant amended claims 5-7 and 10 are now properly further limiting are not persuasive for the reasons given in the objections to these claims stated above.

Applicant's further arguments that claims 1-3, 5-13 and 15-18 are not obvious in view of the applied prior art because the applied prior art (Bohland) is not employed to remove hazardous heavy metals, but rather for the removal of silver from glass is not persuasive because

it has been well settled that where, as in the instant case, all structural elements of an apparatus are shown or fairly suggested by the applied prior art, the specific manner or method of use of the apparatus (the operation of the apparatus on any specific type of material for example) cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114-2115 and *In re Casey*, 152 USPQ 235. Applicant's further argument that Bohland does not teach screening the crushed glass to below a 2mm particle size is also not persuasive because as stated above, Bohland includes screening the crushed materials to this size range.

### ***Conclusion***

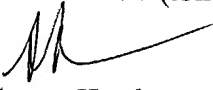
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Scott Kastler  
Primary Examiner  
Art Unit 1742

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